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Base volunteers prepare students for career paths

by Susan M. Barone, ASC Public Affairs

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — This year marks the 15th year that Wright-Patterson has supported the Wright Science, Technology and Engineering Preparatory Program, known as Wright STEPP, which started June 10 at Wright State University, Fairborn, Ohio.

"Each year over 100 base volunteers from all organizations develop, instruct and assist with classes designed to prepare pre-eighth through pre-eleventh grade students for math, science and engineering-related career fields," said Cynthia Hagans-Tunstall, the base coordinator for Wright STEPP.

According to Hagans-Tunstall, the Department of Energy forecast in the 1980s that there would be a dramatic shortage in the number of scientists and engineers available to fill the technological job needs of the future. Clark Beck, a base engineer at the time, brought the idea of Wright STEPP to the attention of the base commander. The base came together with Wright State University and partnered with Dayton Public Schools and local businesses to start the program in 1988. The Aeronautical Systems Center chairs Wright STEPP for the base, while the ASC Engineering & Technical Management Directorate coordinates the effort each year.

One hundred sixty junior high and high school students were accepted into the four-week program where along with hands-on training they study high-level math, science, written and oral communications, computer and engineering courses at Wright State University.

Wright State University identified and selected students within the Dayton Public School system who demonstrated a potential for success in math, science and engineering careers. Students' math and science teachers nominated them for the program.

"The students must have a B average in math, a B average in science and a B average overall," said Hagans-Tunstall. "If the students participate in the program for four summers and maintain academic excellence, they are awarded a four-year scholarship to Wright State University."

Crew Systems Engineer Jennifer Farrell, who works in the B-1B System Program Office, has been a Wright STEPP volunteer for nine years.

"I have been involved in creating and teaching the human factors classes, and I also helped out in the product development class for several years," she said.

"One year we had a specific problem on the program I was working, and I gave it to the kids to solve as a group project in the last 10 minutes of class. They did a great job and some groups even came up with ideas similar to what the contractor was proposing. I took their ideas and showed them to the contractor at the next design review. I don't know if the contractor appreciated the fact that high school juniors came up with the same ideas, but I thought it was really great," Farrell said.

Another volunteer, Jane Robbins, is an associate professor in the business, cost estimating and financial management department for the Defense Acquisition University Midwest Region Campus. She teaches cost estimating and contract pricing courses for DAU, and has volunteered for Wright STEPP since 1996, when she started as a math tutor.

"I've worked primarily with the 8th graders," she said. "Working with the students in Wright-STEPP is always the highlight of my year. The students are motivated, enthusiastic about learning and delightful to work with."

Robbins is an area coordinator for the 8th grade project lab this year.

"It's really gratifying to see young people who will take time from their summer to study math, science, computers and engineering-type subjects. For eighth graders, that is pretty forward thinking—that is, anticipating college and the preparations they need so they can study in the career field of their choice. I admire their dedication to learning."

Volunteer Mark Derriso is an electronic engineer in the analytical structural mechanics branch of the Air Force Research Laboratory's Air Vehicles Directorate who has been with the program since 1990.

"I feel positive about this program," Derriso said. "I teach the 10th grade projects lab. Students bring to the

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lab those theories they've learned about flight in the aerospace technology classes, and we do experiments to show those theories in practice."

The first to go to college in his family, he said that this program is a stepping stone for many students who might not go to college had they not had this opportunity presented to them.

"We offer these students positive role models. We talk about our experiences as engineers," he said. Derriso said that the program gives students a positive, forward focus in a negative world. "Hopefully, these students will say, 'If this man or woman can make it, so can I," he said.

Students graduated from the program July 3 at Wright State University's Nutter Center. **@**